CLAIMS

1. A method of supporting mobile Internet protocol in a packet radio system upon a mobile system moving from a former routing area to a new routing area and sending to a controlling support node a routing area update message, in which on
5   receipt of said routing area update message, a mobile Internet protocol agent advertisement is sent from a controlling support node only to said mobile system, characterised in that the radio system is a General Packet Radio System (GPRS) and the or each controlling support node(s) is a Serving GPRS Support Node (SGSN).

2. A method according to claim 1 in which said advertisement includes
10   challenge/response and network access identifier extensions.

3. A method according to claim 1 or claim 2 in which said advertisement is sent on a general packet radio service system traffic channel.

4. A method according to any preceding claim in which the mobile Internet protocol movement detection algorithm present in the general packet radio .
15   service is arranged to detect a change of foreign agent of said mobile system.

5. A method according to claim 4 in which on detection of a change of foreign agent, said mobile system is immediately registered by mobile internet protocol registration.

6. A method according to any preceding claim in which the former and
20   new routing areas are within the same or different GPRS support networks, and the advertisement is sent after successful sending and receipt of routing area update request, acceptance and completion messages.

7. A method according to any one of claims 1 to 5 in which the former and new routing areas are within different radio network controllers and the
25   advertisement is sent after successful sending and receipt of radio network controller relocation request and completion messages.

8. A packet radio system in which upon a mobile system moving from a former routing area to a new routing area and sending to a controlling support node a routing area update message, upon receipt of said routing area update message, a mobile
30   Internet protocol agent advertisement is sent from a controlling support node only to

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said mobile system, <u>characterised in that</u> the radio system is a General Packet Radio System (GPRS) and the or each controlling support node is a Serving GPRS Support Node (SGSN).